

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A purified superantigen selected from any of one of SMEZ-2, SPE-G, SPE-H and SPE-J, or a functionally equivalent variant thereof, wherein SMEZ-2 or a functionally equivalent variant of SMEZ-2 contains an amino acid sequence of KTSIP.
2. (Currently amended) A purified superantigen which is SMEZ-2 and which has an amino acid sequence of SEQ ID NO:2, or a functionally equivalent variant thereof, wherein SMEZ-2 or a functionally equivalent variant of SMEZ-2 contains an amino acid sequence of KTSIP.
3. (Withdrawn) A superantigen which is SPE-G and which has an amino acid sequence of SEQ ID NO:4, or a functionally equivalent variant thereof.
4. (Withdrawn) A superantigen which is SPE-H and which has an amino acid sequence of SEQ ID NO:6, or a functionally equivalent variant thereof.
5. (Withdrawn) A superantigen which is SPE-J and which has an amino acid sequence of SEQ ID NO:8, or a functionally equivalent variant thereof.
6. (Withdrawn) A polynucleotide comprising a nucleotide sequence encoding SMEZ-2 or a variant thereof as claimed in claim 2.
7. (Withdrawn) A polynucleotide according to claim 6 in which said nucleotide sequence is or includes SEQ ID NO:1.

8. (Withdrawn) A polynucleotide comprising a nucleotide sequence encoding SPE-G or a variant thereof as claimed in claim 3.

9. (Withdrawn) A polynucleotide according to claim 8 in which said nucleotide sequence is or includes SEQ ID NO:3.

10. (Withdrawn) A polynucleotide comprising a nucleotide sequence encoding SPE-H or a variant thereof as claimed in claim 4.

11. (Withdrawn) A polynucleotide according to claim 10 in which said nucleotide sequence is or includes SEQ ID NO:5.

12. (Withdrawn) A polynucleotide comprising a nucleotide sequence encoding SPE-J or a variant thereof as claimed in claim 5.

13. (Withdrawn) A polynucleotide according to claim 12 in which said nucleotide sequence includes SEQ ID NO:7.

14. (Currently amended) A method of subtyping *Streptococci* comprising:
providing a *Streptococci* sample to be tested;
determining whether or not a superantigen SMEZ-2 having an amino acid sequence of SEQ ID NO. 2 or a functionally equivalent variant is present in said sample; and
subtyping the *Streptococci* on the basis of whether or not SMEZ-2 or a functionally equivalent variant is present.

15. (Withdrawn) A method of subtyping *Streptococci* which includes the step of detecting the presence or absence of a polynucleotide as claimed in claim 6.

16. (Withdrawn) A construct which comprises a superantigen or variant thereof as claimed in claim 1 and a cell-targeting molecule.

17. (Withdrawn) A construct according to claim 16 in which said cell-targeting molecule specifically binds a tumour cell.

18. (Withdrawn) A construct according to claim 17 in which said cell-targeting molecule is an antibody.

19. (Withdrawn) A pharmaceutical composition which includes a construct as claimed in claim 16.

20. (Withdrawn) An antibody which binds superantigen SMEZ-2 as claimed in claim 2.

21. (Withdrawn) An antibody which binds superantigen SPE-G as claimed in claim 3.

22. (Withdrawn) An antibody which binds superantigen SPE-H as claimed in claim 4.

23. (Withdrawn) An antibody which binds superantigen SPE-J as claimed in claim 5.

24. (Withdrawn) A kit which includes an antibody as claimed in claim 20.

25. (Withdrawn) A nucleic acid molecule which hybridizes to a polynucleotide of claim 7.

26. (Withdrawn) A nucleic acid molecule which hybridizes to a polynucleotide of claim 9.

27. (Withdrawn) A nucleic acid molecule which hybridizes to a polynucleotide of claim 11.

28. (Withdrawn) A nucleic acid molecule which hybridizes to a polynucleotide of claim 13.

29. (Withdrawn) A kit which includes a nucleic acid molecule as claimed in claim 25.

30. (Withdrawn) A method of diagnosing a disease which is caused or mediated by expression of a superantigen as claimed in claim 1 which includes the step of detecting the presence of said superantigen using an antibody which binds superantigen SMEZ-2, SPE-G, SPE-H or SPE-J, or detecting the presence of a polynucleotide encoding said superantigen using a nucleic acid molecule which hybridizes to a polynucleotide comprising a nucleotide sequence encoding SMEZ-2 which is or includes SEQ ID NO:1, a nucleotide sequence encoding SPE-G which is or includes SEQ ID NO:3, a nucleotide sequence encoding SPE-H which is or includes SEQ ID NO:5, or a nucleotide sequence encoding SPE-J which is or includes SEQ ID NO:7.

31. (Currently amended) The purified superantigen of claim 2, wherein the superantigen is encoded by a nucleic acid sequence of SEQ ID NO: 1.